

B1  
A1  
Cont

first storage means for storing first control information for controlling a position of said movable lens means when said external device is attached;

second storage means for storing second control information for controlling the position of said movable lens means when said external device is not attached; and

control means for reading out contents of said first or second storage means in accordance with a detection result of said detection means, and controlling said drive means using the first or second control information.

12. (Amended) A lens apparatus comprising:

movable lens means for forming an objet image on a predetermined plane while moving along an optical axis;

drive means for driving said movable lens means;

connection means for detachably attaching an external device;

detection means for detecting attachment/detachment of said external device;

first storage means for storing first control information for controlling a position of said movable lens means when said external device is attached;

second storage means for storing correction data for correcting the control information; and

control means for reading out contents of said first and/or second storage means in accordance with a detection result of said detection means, and controlling said drive means using the control information when said external device is not attached and using control

a<sub>1</sub>  
C<sub>1</sub>  
information obtained by correcting the control information by the correction data when said external device is attached.

---

a<sub>2</sub>  
β<sub>1</sub>  
20. (Amended) A computer-readable storage medium storing a program for executing:  
a sequence of detecting if an external device is attached between a lens apparatus and a camera unit; and  
a sequence of controlling a position of a movable lens using first control information when it is detected that the external device is not attached, and controlling the position of the movable lens using second control information when it is detected that the external device is attached.

---

a<sub>3</sub>  
C<sub>2</sub>  
23. (Amended) A computer-readable storage medium storing correction data for correcting control information that controls a position of a movable lens when an external apparatus is attached between a lens apparatus and a camera unit, wherein the lens apparatus has a movable lens.

24. (Amended) An imaging apparatus which has a lens system including a zoom lens group for changing a field angle and a focus compensation lens group having both a function of correcting a change in focal plane position upon movement of said zoom lens group and a focus adjustment function, and storage means for storing a locus that represents a positional relationship between said zoom lens group and focus compensation lens group in

A<sup>3</sup>  
cont  
B1  
an in-focus state in correspondence with an object distance, and moves said zoom lens group and focus compensation lens group to trace the locus stored in said storage means upon zooming, comprising:

generation means for generating a video signal by photoelectrically controlling an optical image obtained via said lens system;

discrimination means for discriminating an in-focus level and a direction to drive to reach an in-focus point by detecting focus states in a predetermined period from the video signal generated by said generation means and comparing the focus states upon zooming; and

determination means for determining the period on the basis of a moving speed of said zoom lens group.

A<sup>4</sup>  
cont  
30. (Amended) An imaging method for an imaging apparatus which has a lens system including a zoom lens group for changing a field angle and a focus compensation lens group having both a function of correcting a change in focal plane position upon movement of said zoom lens group and a focus adjustment function, and storage means for storing a locus that represents a positional relationship between said zoom lens group and focus compensation lens group in an in-focus state in correspondence with an object distance, and moves said zoom lens group and focus compensation lens group to trace the locus stored in said storage means upon zooming, comprising:

the generation step of generating a video signal by photoelectrically converting an optical image obtained via said lens system;

a4  
cond

the discrimination step of discriminating an in-focus level and a direction to drive to reach an in-focus point by detecting focus states in a predetermined period from the video signal generated in the generation step and comparing the focus steps upon zooming; and the determination step of determining the period on the basis of a moving speed of said zoom lens group.

---

a5  
cond  
B1

36. (Amended) A storage medium which is used in an imaging apparatus having a lens system including a zoom lens group for changing a field angle and a focus compensation lens group having both a function of correcting a change in focal plane position upon movement of said zoom lens group and a focus adjustment function, and storage means for storing a locus that represents a positional relationship between said zoom lens group and focus compensation lens group in an in-focus state in correspondence with an object distance, and which stores a program for moving said zoom lens group and focus compensation lens group to trace the locus stored in said storage means upon zooming, said program stored in said storage medium including:

a generation routine for generating a video signal by photoelectrically converting an optical image obtained via said lens system;

a discrimination routine for discriminating an in-focus level and a direction to drive to reach an in-focus point by detecting focus states in a predetermined period from the video signal generated in the generation routine and comparing the focus steps upon zooming; and

a determination routine for determining the period on the basis of a moving speed of said zoom lens group.

---

A 6  
cancel

42. (Amended) A lens control apparatus comprising:

a zoom lens;

a focus lens;

focus detection means for detecting a focus state from a video signal in a predetermined period;

focus control means for controlling said focus lens on the basis of an output from said focus detection means; and

control means for changing the period on the basis of a moving speed of said zoom lens.

B1

A 7  
cancel

44. (Amended) A lens control method comprising:

the focus detection step of detecting a focus state from a video signal in a predetermined period in an imaging apparatus having a zoom lens and focus lens;

the focus control step of controlling said focus lens on the basis of an output from the focus detection step; and

the control step of changing the period on the basis of a moving speed of said zoom lens.